Existence, Uniqueness and stability of Mild Solution of Lipschitzian Quantum Stochastic Differential Equations

S. A. Bishop; M. C. Agarana; O. O. Agboola; G. J. Oghonyon and T. A. Anake.

Department of Mathematics, Covenant University,
Ota, Ogun Sate, Nigeria.

Abstract

We introduce the concept of a mild solution of Lipschitzian quan-tum stochastic di_erential equations (QSDEs). Results on existence, uniqueness and stability of mild solution of QSDEs are established. This is accomplished within the framework of the Hudson-Parthasarathy formulation of quantum stochastic calculus. Here, the results on a mild solution are weaker compared with the ones in the literature. 2010 Mathematics Subject Classi_cation: 81S25, 31A37. Keywords:Mild solution of QSDEs; in_nitesimal generator; Noncommutative stochastic processes.